Notice of Allowability	Application No.	Applicant(s)	
	09/159,267	TREADAWAY ET AL.	
	Examiner	Art Unit	
	Thai D Hoang	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *09/23/1998*.

2. ☒ The allowed claim(s) is/are *1-13, 15-27 and 29-50 have been renumbered as 1-48 respectively*.

3. ☒ The drawings filed on *23 September 1998* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 2-4 and 7
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Sheridan Neimark on 03/30/2005.

The application has been amended as follows:

Claim 1:

1. (Once amended) A method of synchronizing Fast Ethernet data packets to radio frames, the method comprising steps of:

a. receiving Fast Ethernet data packets;

b. storing packet data from the Fast Ethernet data packets in a packet buffer wherein the step of storing is performed according to a first clock signal wherein the first clock signal is derived from the Fast Ethernet data packets;

c. retrieving the packet data from the packet buffer thereby forming retrieved packet data wherein the step of retrieving is performed according to a second clock signal wherein the second clock signal is asynchronous with the first clock signal; and

d. formatting the retrieved packet data according to radio frames[[.]];

wherein the method does not include a step of converting the packet data into a telephony communication protocol or into an asynchronous transfer mode (ATM) protocol prior to communication of the radio frames over the wireless link.

Claims 14 and 28: has been cancelled.

Claim 15:

15. (Once amended) An apparatus for synchronizing Fast Ethernet data packets to radio frames, the apparatus comprising:

a. a packet transceiver for detecting Fast Ethernet data packets;

b. a packet buffer coupled to the packet transceiver for temporarily storing packet data from the data packets according to a first clock signal derived from the data packets;

c. a packet retriever coupled to the packet buffer for retrieving the packet data from the packet buffer thereby forming retrieved packet data wherein the packet retriever retrieves the packet data according to a second clock signal and wherein the second clock signal is asynchronous with the first clock signal; and

d. a radio framer coupled to the packet retriever for formatting the retrieved packet data into radio frames[[.]];

wherein the packet data is not converted into a telephony communication protocol or into an asynchronous transfer mode (ATM) protocol prior to communication of the radio frames over the wireless link.

Claim 35:

35. (Once amended) An apparatus for synchronizing radio frames to Fast Ethernet data packets, the apparatus comprising:

a. a synchronizer / de-synchronizer for recovering packet data for Fast Ethernet data packets from radio frames received from a wireless link [[received from a wireless link]];

b. a packet buffer coupled to the synchronizer/desynchronizer for temporarily storing packet data from the radio frames according to a first clock signal synchronous with the radio frames;

c. a packet retriever coupled to the packet buffer for retrieving the packet data from the packet buffer thereby forming retrieved packet data wherein the packet retriever retrieves the packet data according to a second clock signal and wherein a frequency of the second clock signal is lower than a frequency of the first clock signal; and

d. an Ethernet transceiver coupled to the packet retriever for forwarding the Ethernet data packets reconstructed from the radio frames[[.]];

wherein the method does not include a means for converting the packet data into a telephony communication protocol or into an asynchronous transfer mode (ATM) protocol prior to communication of the radio frames over the wireless link.

Claim 39:

39. (Once amended) An apparatus for synchronizing radio frames to Fast Ethernet data packets, the apparatus comprising:

a. a synchronizer/de-synchronizer for recovering packet data for Fast Ethernet data packets from radio frames received from a wireless link;

b. a packet buffer coupled to the synchronizer/desynchronizer for temporarily storing packet data from the radio frames according to a first clock signal synchronous with the radio frames;

c. a packet retriever coupled to the packet buffer for retrieving the packet data from the packet buffer thereby forming retrieved packet data wherein the packet retriever retrieves the packet data according to a second clock signal and wherein at least sufficient packet data for a complete one of the Ethernet data packet is stored in the packet buffer prior to the packet retriever retrieving the packet data; and

d. an Ethernet transceiver coupled to the packet retriever for forwarding the Fast Ethernet data packets reconstructed from the radio frames[[.]];

wherein the method does not include a means for converting the packet data into a telephony communication protocol or into an asynchronous transfer mode (ATM) protocol prior to communication of the radio frames over the wireless link.

Claim 43:

43. (Once amended) A method of synchronizing radio frames to Fast Ethernet data packets, the method comprising steps of:

a. recovering packet data for Fast Ethernet data packets from radio frames received from a wireless link;

b. storing packet data from the radio frames in a paclçet buffer according to a first clock signal synchronous with the radio frames;

c. retrieving the packet data from the packet buffer thereby forming retrieved packet data wherein the step of retrieving is performed according to a second clock signal and wherein a frequency of the second clock signal is lower than a frequency of the first clock signal; and

d. forwarding the Fast Ethernet data packets reconstructed from the radio frames[[.]];

wherein the method does not include a step of converting the packet data into a telephony communication protocol or into an asynchronous transfer mode (ATM) protocol prior to communication of the radio frames over the wireless link.

Claim 47:

47. (Once amended) A method of synchronizing radio frames to Fast Ethernet data packets, the method comprising steps of:

a. recovering packet data for Fast Ethernet data packets from radio frames received from a wireless link;

b. storing packet data from the radio frames in a packet buffer according to a first clock signal synchronous with the radio frames;

c. retrieving the packet data from the packet buffer thereby forming retrieved packet data wherein the step of retrieving is performed according to a second clock signal and wherein at least sufficient packet data for a complete one of the Fast Ethernet data packet is stored in the packet buffer prior to retrieving the packet data; and

d. forwarding the Fast Ethernet data packets reconstructed from the radio frames[[.]];

wherein the method does not include a step of converting the packet data into a telephony communication protocol or into an asynchronous transfer mode (ATM) protocol prior to communication of the radio frames over the wireless link.

Allowable Subject Matter

Claims 1-13, 15-27 and 29-50 have been renumbered as 1-48 respectively.

Claims 1-48 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Enns et al. US patent No. 6,658,010, discloses "High-speed internet access system". Enns does not teach or fairly suggest the following features, which are recited in each independent claim of the present application:

1. A method of synchronizing Fast Ethernet data packets to radio frames, the method comprising steps of:

a. receiving Fast Ethernet data packets;

b. storing packet data from the Fast Ethernet data packets in a packet buffer wherein the step of storing is performed according to a first clock signal wherein the first clock signal is derived from the Fast Ethernet data packets;

c. retrieving the packet data from the packet buffer thereby forming retrieved packet data wherein the step of retrieving is performed according to a second clock signal wherein the second clock signal is asynchronous with the first clock signal; and

d. formatting the retrieved packet data according to radio frames;

wherein the method does not include a step of converting the packet data into a telephony communication protocol or into an asynchronous transfer mode (ATM) protocol prior to communication of the radio frames over the wireless link as recited in claims 1 and 15.

2. An apparatus for synchronizing radio frames to Fast Ethernet data packets, the apparatus comprising:

a. a synchronizer / de-synchronizer for recovering packet data for Fast Ethernet data packets from radio frames received from a wireless link received from a wireless link;

b. a packet buffer coupled to the synchronizer/desynchronizer for temporarily storing packet data from the radio frames according to a first clock signal synchronous with the radio frames;

c. a packet retriever coupled to the packet buffer for retrieving the packet data from the packet buffer thereby forming retrieved packet data wherein the packet retriever retrieves the packet data according to a second clock signal and wherein a frequency of the second clock signal is lower than a frequency of the first clock signal; and

d. an Ethernet transceiver coupled to the packet retriever for forwarding the Ethernet data packets reconstructed from the radio frames;

wherein the method does not include a means for converting the packet data into a telephony communication protocol or into an asynchronous

transfer mode (ATM) protocol prior to communication of the radio frames over the wireless link as recited in claims 35 and 37.

3. A method of synchronizing radio frames to Fast Ethernet data packets, the method comprising steps of:

a. recovering packet data for Fast Ethernet data packets from radio frames received from a wireless link;

b. storing packet data from the radio frames in a paclçet buffer according to a first clock signal synchronous with the radio frames;

c. retrieving the packet data from the packet buffer thereby forming retrieved packet data wherein the step of retrieving is performed according to a second clock signal and wherein a frequency of the second clock signal is lower than a frequency of the first clock signal; and

d. forwarding the Fast Ethernet data packets reconstructed from the radio frames;

wherein the method does not include a step of converting the packet data into a telephony communication protocol or into an asynchronous transfer mode (ATM) protocol prior to communication of the radio frames over the wireless link as recited in claims 43 and 47.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to the application:

US Patent No. 5,936,949 A, Pasternak et al. discloses "Wireless ATM metropolitan area network."

US patent No. 6,658,010, Enns et al. discloses "High-speed internet access system."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (571) 272-3184. The examiner can normally be reached on Monday-Friday 10:00am-18:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Hoang

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